



NATIONAL YOUTH DEVELOPMENT AGENCY  
**OUR YOUTH. OUR FUTURE.**

# Blue Economy

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## 1. Introduction

The 'blue economy' refers to the range of economic activities that promote the "sustainable use of ocean resources for economic growth, improved livelihoods, and jobs while preserving the health of ocean ecosystem. Oceans are increasingly gaining importance in terms of enabling international trade via linking sellers and buyers. The behaviour patterns of such linking enablers on the oceans are receiving more attention from a regulatory and economic perspective as the relationship between land and ocean evolves in its role and importance. This document will also attempt to structure various types of activities which are associated with ocean services with a view of identifying focus areas for the growth of the Blue Economy and how South African youth may effectively utilize oceans activities for their benefit.

From a youth employment perspective, the discussion note highlights the importance of Blue Economy especially in low-income countries, given higher income levels from fisheries compared to agriculture. The discussion note also highlights the significance of the Blue Economy in many subnational contexts; evaluating the economic importance of the blue economy using national statistics may often mask the critical role that the Blue Economy plays in the specific subnational regions within countries. The note also discusses the importance of understanding how the Blue Economy is changing in response to trends in technological innovation, environmental concerns, and the move towards a circular economy which in turn affects the skills that youth would need to have in order to hold productive and meaningful jobs in the blue economy. Finally, the note discusses four main types of policy interventions that can help support job opportunities for youth in ocean-based industries: 1) deepening youth employment data analysis, 2) closing blue skills gaps, 3) improving the attractiveness and awareness of blue careers among youth; 4) promoting youth entrepreneurship and innovation in blue economy sectors.

## 2. The importance of Blue Economy for local employment

**Economically**, many countries depend on ocean-based industries for their gross domestic product, trade, and public revenues. The contribution of ocean-based industries to the global economy is projected to grow rapidly and, if done sustainably, it could double by 2030. Among the main drivers of growth are the increasing demand for food and nutrition and alternative energy sources, as well as the global growth of tourism, research and development activities in ocean technologies.

**Environmentally**, healthy oceans provide essential ecosystem services for businesses and people to thrive. For example, oceans contribute to climate change mitigation, absorbing about 30 percent of total carbon dioxide produced by people. Sustainable blue industries further support carbon capture by decarbonizing maritime transport, greening ports and supporting the energy transition with the production of offshore renewable energy. The Blue Economy also offers an opportunity to accelerate action to tackle pollution, by for example, reducing pollution from fishing vessels through circular design of fishing gear and ship recycling, as well as promoting sustainable tourism practices that reduce marine pollution both from land-based and ship-based sources. Finally, sustainable blue economy industries support the conservation of marine biodiversity, which is vital for coastal economies that rely on large fish stocks, and for tourism destinations that depend on the variety of marine life to attract visitors.



### 3. Blue Economy in South Africa

The Blue Economy plays a key role in local employment creation. As with any economic activity, the relative importance of the Blue Economy for youth employment creation depends, to some extent, upon the level at which this is measured (global, national, local, etc.). While employment in the Blue Economy may account for a relatively small fraction of national employment in each country, it may form a much larger share of employment for certain subnational areas, this in essence would give rise to opportunities within the context of African Continental Free Trade Area agreement (AfCFTA).

South Africa boasts a long coastline of approximately 3900 kilometres which includes mainland South Africa and Prince Edward Islands which comprise of Marion Island and Prince Edward Island in the Southern Ocean. Its vast ocean area (Exclusive Economic Zone) of some 1.5 million square kilometres (compared to the land-mass of approximately 1.2 million square kilometres) and the fact that South Africa is uniquely surrounded by three oceans, the Atlantic Ocean in the West, the Southern Ocean in the South and the Indian Ocean in the East which is rich in biodiversity and other natural resources, provides opportunities for sustainable utilisation and economic growth. This analysis gives space for young people to explore the vast opportunities that comes within this economic sector.





## 4. Developing Sustainable Careers and Businesses for South Africa's Youth

The National Youth Development Agency (NYDA) as a youth development entity through Integrated Youth Development Strategy must, therefore, lobby and advocate Lead Departments to come up with viable programmes and funding model within the context of Blue Economy for young people to participate in this economic sector. It is projected that Under Operation Phakisa - Oceans Economy, a priority programme, the South African Government, aims to grow the Ocean Economy's contribution to the country's GDP to R129-177 billion by 2033 and this is expected to provide up to a million new jobs.

- *Major Ports*

South Africa has eight major ports, including two of the world's top container ports and two of the world's biggest dry bulk ports. Between them, the ports have capacity for Panamax and Capesize vessels, and Ultra-large Container Ships. Durban and Saldanha Bay can also offload Very Large Crude Carriers. Port capacity is planned on a 30-year forecast, and billions of dollars are already allocated for upgrades, expansion ahead of demand, and the creation of a brand-new deep-water port that will be able to handle new-generation very large vessels.

- *Young Women and People with Disabilities*


Women are less likely than men to participate in the Blue Economy. Women represent only a small percentage of the total number of people employed in the Blue Economy. Given this enormous diversity available through the ocean's economy, there are several value chains from which young people especially young women and people living with Disabilities could leverage opportunities for jobs, develop entrepreneurships, and build their businesses. In addition, Boat builders are required to construct small and large vessels once these vessels are designed by engineers. Maintenance technicians across various disciplines

such as mechanical, electrical and others are required to ensure the ships and their equipment run optimally. Marine biologists are required to point out where the best fishing spots are and fishing nets used by the trawlers need to be made, this clearly indicates the level at which jobs could be created for young people in South Africa. The curriculum should also enable young people to have a firm understanding of three primary sub-sectors, namely, shipping and transport, marine resources, and marine tourism. The skills which are drawn from Operation Phakisa to cover all the primary, secondary, and tertiary economic activities within the Oceans Economy, furthermore, a curriculum will capacitate young people in the value chain in the Blue Economy. These variables include operational support services, which comprise shipping logistics and marine technologies, manufacturing, and construction (including civil engineering, marine manufacturing, ship repair and maintenance), as well as business services, which incorporates maritime specialised professionals within the banking, legal, insurance, Information and Communication Technology (ICT), and the consulting domain.



- *Operation Phakisa*

In March 2014, the South African Cabinet approved the piloting of the methodology, known in South Africa as Operation Phakisa. Its first implementation was led by the Department of



Environmental Affairs (DEA) to unlock the economic potential of South Africa's oceans. The planning phase of Operation Phakisa - Oceans Economy took place in mid-2014.

- ***Lead Departments on priority areas***


Departments are now in the implementation phase on six growth areas which were prioritised to contribute to unlocking the economic potential of South Africa's oceans, based on their potential contribution to economic growth and job-creation. Marine Transport and Manufacturing led by the Department of Transport, Offshore Oil and Gas Exploration led by the Department of Mineral Resources, Aquaculture led by the Department of Agriculture, Forestry and Fisheries, Marine Protection Services and Ocean Governance led by the Department of Environmental Affairs, Small Harbours Development led by the Department of Public Works and Coastal and Marine Tourism.

- ***Skills Development and Capacity Building***

The abovementioned six focus areas are supported by cross-cutting strategies in the areas of Skills Development and Capacity Building led by the Department of Higher Education and Research, Technology and Innovation led by the Department of Science and Technology. To date, the South African government has unlocked investments in the Oceans Economy amounting to around US\$1.1 billion since the inception of Operation Phakisa - Oceans Economy.

- ***Investment***

Investment South Africa (InvestSA) is a division of the South African Department of Trade and Industry (the dti). It provides investment promotion, facilitation, and aftercare geared towards fast-tracking projects and reducing government red tape. It was established on 1st April 2016 as a dedicated public-private sector partnership on investment. This is another area wherein young people need to be supported and integrated by government to exhaust these investment opportunities.



## 5. Challenges in the Blue Economy

The economic fields of activity have a cumulative effect on the marine environment, which is the largest ecosystem on our planet. The consequences of its use and exploitation have become increasingly extensive for decades, compounded by climate change and greenhouse gas emissions. Garbage slicks, plastic and oil spills are visible from afar. Added to these are the invisible burdens of microplastics, chemicals, nutrients, and underwater noise. The loss of biodiversity and natural habitats as well as health risks for the food chain are consequently creating challenges.

Climate and oceans are also closely linked and interdependent, and it should be noted that Oceans are the main carbon sink on earth, meaning they absorb and store man-made Carbon dioxide. This process, which is positive on the one hand, has a major disadvantage, however, the absorbed CO<sub>2</sub> dissolves in the water and triggers acidification. This leads to damage to sensitive ecosystems such as coral reefs, which support almost a quarter of marine life.

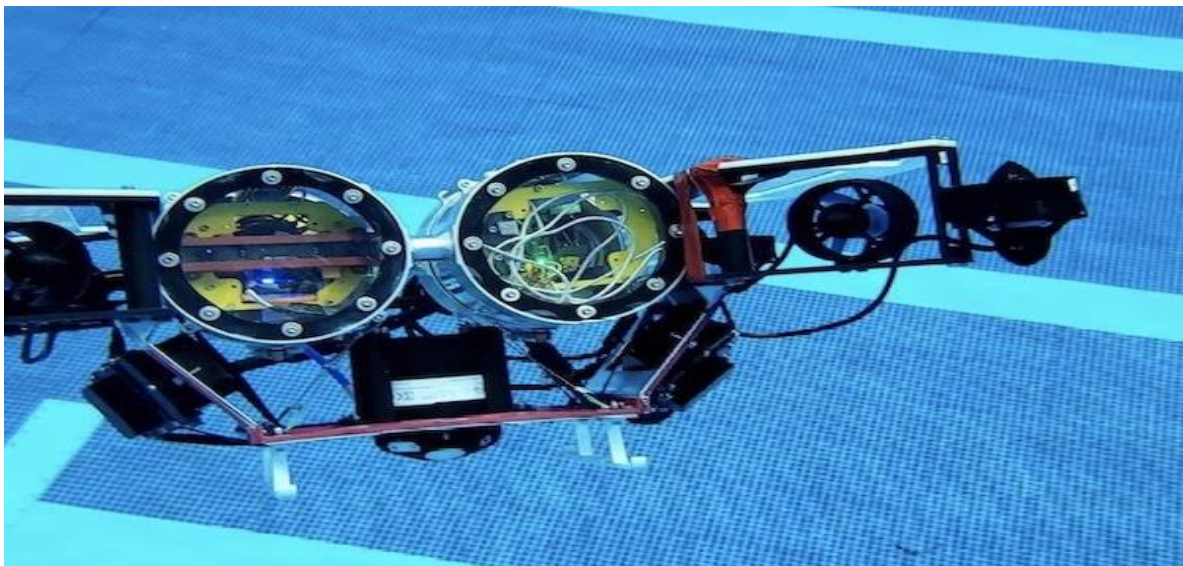
Another important challenge of the Blue Economy is to understand and better manage many aspects of oceanic sustainability, ranging from sustainable fisheries to ecosystem health to preventing pollution. In addition, the Blue Economy challenges us to realize that the sustainable management of ocean resources will require collaboration across borders and sectors through a variety of partnerships, and on a scale that has not been previously achieved. Finally, Skill shortages among young people is a barrier to connect with high skilled well-paid jobs in blue economy.





## 6. Trends and new opportunities for youth in the Blue Economy

Digitalization, technological innovation, and circular economy are radically changing the demand for skills in traditional and emerging blue sectors. While digital technologies create new employment opportunities for youth, many young people struggle to meet the qualifications demanded by companies in ocean-based industries. Upskilling (improving existing skills) and reskilling (training in new skills) of youth is crucial to realize the full employment potential of the blue economy for young people.



Technical and Vocational Education and Training (TVET) can address skill shortages among youth, but there are some challenges that need to be tackled. One issue relates to the limited number of TVET colleges in the country, which in some instances are under



resourced. There is a mismatch between the training offered by TVET colleges and the skills demanded in Blue Economy labor markets. Youth that graduate from TVET programs struggle to find jobs because most of the available TVET programs are not in line with market requirements.


There is a need to raise awareness about youth employment opportunities in blue sectors. Often youth are unfamiliar with the large variety of career opportunities in traditional and emerging Blue Economy sectors.

## 7. Road to a sustainable Blue Economy

A sustainable blue economy should support and advance the economic well-being of youth and the most vulnerable, by serving as a driver of jobs and livelihoods, as well as preserving healthy oceans. There's a strong need for policy efforts from NYDA to promote youth employment in a Blue Economy. The improvement of national employment statistics on youth participation in traditional and emerging blue economy industries is essential in the design of youth and gender sensitive policies. Data collection should also track employment that is seasonal, sporadic or informal in a way that disaggregated by age group, sex, and disability.

Initiatives that inspire and create awareness about blue career opportunities for youth should be stepped up. A big challenge for attracting the future workforce of blue industries is that blue careers are often unappealing jobs for youth, as they are perceived as traditional labor-intensive activities that generate low wages. Government should work with research organizations, Higher Education Institutions and Civil Society to raise awareness. The promotion of youth entrepreneurship and innovation in the Blue Economy needs to be increased. This is a critical area wherein the NYDA must accelerate organizational drive for proper implementation.

The potential of the Blue Economy to ensure and improve human well-being and social justice are enormous. The risks associated are no less far-reaching if the ecological services of the oceans, seas and coasts continue to be used or exploited with primarily economic



interests. The concepts, approaches and measures, Government has taken in the protection of the oceans are pivotal, furthermore, the ocean and water protection as well as the necessary sustainability of the Blue Economy are coming into focus. Government, Companies, institutions, and organizations that contribute to the restoration, protection or maintenance of productive and resilient marine ecosystems and promote the availability of clean water and sanitation facilities have become important stakeholders in the Blue Economy.

## 8. Conclusion

The abovementioned concept of the ocean's economy, also referred to as the Blue Economy, is one that simultaneously promotes economic growth, environmental sustainability, social inclusion, and the strengthening of oceans ecosystems. Coastal and marine tourism is one of the most significant sectors of the Blue Economy and arguably of critical importance for many African countries and the world. This paper has analysed emerging planning for coastal and marine tourism in South Africa as part of Blue Economy planning which is conducted under the guidelines of Operation Phakisa. The broad planning framework of Operation Phakisa is challenged by few shortcomings, most importantly for prioritising investment attraction and economic growth stimulation over issues about the conservation of maritime resources as well as the continued exclusion of young women and people living with Disabilities.



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